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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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KONSTANDINOS ZAMFES
1830 - 10TH AVE S.W.
CALGARY, AB T3C-OJ8
CANADA

EXAMINER

LEE, SHUN K

ART UNIT PAPER NUMBER

2884

DATE MAILED: 06/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/711,333

Applicant(s)

ZAMFES, KONSTANDINOS

Examiner

Shun Lee

Art Unit

2884

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20040910.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "34" and "35" have both been used to designate induction coil. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are also objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "16" has been used to designate both beta ray receiver and induced radiation. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and

informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are further objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 14, 18, 22, 25, 32, 41, 45, 51, 52, 53, 61, 62, 63, 64, 65, 66, 67, and 68. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities:

- (a) in paragraph 4, "week" should probably be --weak--; and
- (b) "led" should probably be --lead-- (e.g., in paragraph 19, etc).

Appropriate correction is required.

Claim Objections

5. The numbering of claims is not accordance with 37 CFR 1.75 (*i.e.*, if there are several claims, they shall be numbered consecutively in Arabic numerals).

Misnumbered claims 1.2, 2, 2.1, 3, 4, 6, 7, 7.1, and 7.3 have been renumbered as 2, 3, 4, 5, 6, 7, 8, 9, and 10, respectively.

6. The claims are objected to because they include reference characters which are not enclosed within parentheses.

Reference characters corresponding to elements recited in the detailed description of the drawings and used in conjunction with the recitation of the same element or group of elements in the claims should be enclosed within parentheses so as to avoid confusion with other numbers or characters which may appear in the claims. See MPEP § 608.01(m).

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-10 are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one

sentence form only (*i.e.*, each claim begins with a capital letter and ends with a period; see MPEP § 608.01(m)). Note the format of the claims in the patent(s) cited.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Georgi *et al.* (US 5,571,962) in so far as understood.

In regard to claim 1, Georgi *et al.* disclose (column 5, line 48 to column 6, line 25) an apparatus for measuring the natural gamma radiation in discrete media of drilling cuttings.

In regard to claim 2, Georgi *et al.* disclose (column 5, line 48 to column 6, line 25) means of obtaining signal that is discriminating the natural gamma radiation of different formations obtained at the surface from unconsolidated material and drilling cuttings.

11. Claims 3, 6, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Sharma *et al.* (US 6,220,371) in so far as understood.

In regard to claim 3, Sharma *et al.* disclose (column 9, line 33 to column 10, line 20) an apparatus for measuring the absorption properties of gamma radiation in discrete media of drilling cuttings.

In regard to claim **6**, Sharma *et al.* disclose (column 3, line 43 to column 4, line 63) an apparatus for measuring the sonic velocities and penetration properties of formation in discrete media of drilling cuttings.

In regard to claim **7**, Sharma *et al.* disclose (column 3, line 43 to column 4, line 63) a parameter to correlate the quantity of sample passing at this time through the auger.

12. Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by Davis *et al.* (US 4,536,713) in so far as understood.

In regard to claim **5**, Davis *et al.* disclose (abstract; Fig. 2) an apparatus for measuring the induction resistivity properties of formation in discrete media of drilling cuttings.

13. Claims 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Eckels (US 3,802,259) in so far as understood.

In regard to claim **8**, Eckels discloses (column 3, lines 7-21) an apparatus for fluorescence brightness measurement by injection of dissolvent.

In regard to claim **9**, Eckels discloses (column 3, lines 7-21; column 6, lines 5-24) a process of constantly injecting small dose of dissolvent in to the cuttings flow.

14. Claim 10 is rejected under 35 U.S.C. 102(b) as being anticipated by Rhyne, Jr. (US 4,659,676) in so far as understood.

In regard to claim **10**, Rhyne, Jr. discloses (column 5, lines 20-59) a sensor which measures the amplitude and frequency of light emission produced.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma *et al.* (US 6,220,371) in view of Georgi *et al.* (US 5,571,962) in so far as understood.

In regard to claim 4, Sharma *et al.* disclose (column 9, line 33 to column 10, line 20) a gamma ray receiver. The apparatus of Sharma *et al.* lacks a beta ray receiver. Georgi *et al.* teach (column 5, line 48 to column 6, line 25) to provide a beta ray receiver, in order to reduce measurement errors. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to provide a beta ray receiver in the apparatus of Sharma *et al.*, in order to reduce measurement errors.

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shun Lee whose telephone number is (571) 272-2439. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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CONSTANTINE HANNAHER
PRIMARY EXAMINER